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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,518	11/29/2001	Katsuhiko Doi	450100-03654	3535

20999 7590 04/20/2005

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NEW YORK, NY 10151

EXAMINER
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LUK, EMMANUEL S

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/996,518

Applicant(s)

DOI ET AL.

Examiner

Emmanuel S. Luk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim states the vacuum tank is connected to the cavity via an exhaustion channel. However, the parent claim of claims 2 and 3 states that the "air and/or fluid inside the cavity is exhausted directly by said vacuum apparatus without passing through any vacuum lines or conduits". This is in conflict with the exhaustion channel as conduits, lines, and channels are passageways.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozeki (4997026) in view of Lebensfeld (5453000).

Ozeki teaches a gas venting apparatus for a molding apparatus, where a vacuum apparatus (100; gas venting device) is within the die apparatus (1) in close proximity to the cavity (4) and circumferentially above the cavity (Fig. 1) and air is exhausted directly by the vacuum apparatus, a valve (106) is provided for opening and closing of the passage of the exhaustion channel, the exhaustion channel being the channel that leaves from the chamber (13) towards the exhaustion channel, or exhaust port (110).

Ozeki fails to teach a vacuum tank and the tank being at least a larger than a total volume capacity of the cavity plus said exhaustion channel.

However, Ozeki does teach a vacuum apparatus located in the die apparatus. Lebensfeld teaches a molding apparatus wherein the mold (80) is in close proximity to the vacuum tank (61) (Fig. 14-18). The pump is located inside the housing (12) of the apparatus along with the mold (80). One of ordinary skill in the art would recognize of the placement of the vacuum tank of Lebensfeld adjacent to the exhaust port (110) of Ozeki as it would allow for the tank to be placed within the die apparatus since the Lebensfeld invention calls for the vacuum tank to be within the housing of the die apparatus.

It would have been obvious to one of ordinary skill in the art to modify Ozeki with the tank as taught by Lebensfeld because it allows for portability of the entire apparatus in a single housing.

In regards to the product, Ozeki and Lebensfeld both teach a unitary molded product being produced. Both references are capable of creating a disc-shaped product it is merely a change in shape of the molding surface. The shape of the molding surface in creating the shaped product is a design choice of the user.

In regards to the size of the vacuum tank, it would have been obvious to one skilled in the art to change the size of the tank for the desired vacuum effect on the cavity it is merely relative size. Lebensfeld also teaches the use of the tank for producing a partial vacuum in the cavity. Thus, a larger tank size for achieving a complete vacuum of the cavity.

In regards to the "without passing through any vacuum lines or conduits", the vacuum apparatus (100) is placed directly with the cavity as seen figure 1, so the air and/or fluid of the cavity will be exhausted directly by the vacuum apparatus (100).

### ***Response to Arguments***

6. Applicant's arguments filed 1/28/2005 have been fully considered but they are not persuasive. The applicant's argument concerning Osada and Lebensfeld and primarily the positioning of the vacuum apparatus in proximity to the cavity and the lack vacuum lines or conduits. The applicants have also amended the claims in light of their arguments. However, while the applicants try to distinguish a vacuum line and conduit,

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there is little difference from this from an exhaustion channel, as it is any passageway that provides for the air/fluid to pass through and in this particular case, to vent away from the cavity. The new Ozeki reference positively teaches a vacuum apparatus that is located directly in connection with the cavity.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brand (5866442): Brand teaches a vacuum apparatus that is directly adjacent to the cavity, here the vacuum chamber (66) that allows for the air to flow into.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (571) 272-1134. The examiner can normally be reached on Monday-Thursday 7 to 4 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ben Utech can be reached on (571) 272-1137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EL

Joseph S. Del Sole 4/18/05  
Joseph S. Del Sole